

Name \_\_\_\_\_ Date \_\_\_\_\_

### REVIEW ON SECTIONS 4.1 - 4.4

Write each polynomial in standard form

1. $5x - 11 + 9x^2 \rightarrow$
2. $9a + 4a^3 - 7a^4 - 15 \rightarrow$
3. $\frac{4}{7} + \frac{3}{5}x^4 - \frac{2}{3}x^2 \rightarrow$
4. $\frac{6}{5}a^5 + \frac{8}{5}a^2 - \frac{7}{3}a^4 + \frac{9}{4}a \rightarrow$

Determine whether each expression is a polynomial

5. $9x^{-2} + 7x - 11$		6. $\sqrt{6}a^3 + 7a^2 - 14$	
7. $14a^2 - 9ab + 4b^2$		8. $-14x^7y^2z^4$	
9. $\frac{x}{4} - \frac{x^2}{7}$		10. $\frac{4}{a^3} + \frac{9}{a^2} - \frac{2}{a}$	
11. $4^{2a} + 9^a - 16$		12. $5x^2 + 4\sqrt{x} - 9$	

Find the degree of each polynomial

13. $7a^3b - 11a^2b^4 + 2a^3b^2$		14. $-24a$	
15. $14x^6y^2 + 9x^4y^3$		16. $19a^5bc^7 + 7a^4b^2c^6$	
17. $42$		18. $a^6b^7 - b^7c^4 + c^9d^5$	

Find each sum or difference

19. $(7x + 9) + (2x + 5) =$
20. $(11x + 6) - (4x + 3) =$
21. $(4x^2 + 9x + 5) + (5x^2 + 2x + 9) =$